



International Trail Scoping Report

Bernalillo County Public Works



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1.0 Executive Summary

1.1 Proposed Trail

Bernalillo County Public Works, in coordination with City of Albuquerque Department of Municipal Development, has prepared a scoping report for implementing the proposed International Trail located along roadways in the International District (Southeast Heights) of Albuquerque. The International District is bounded on the north by Lomas Boulevard, on the south by Gibson Boulevard, on the west by San Mateo Boulevard and on the east by Wyoming Boulevard. Trail corridors extend approximately 14 miles and include the following roadways (see map below):

- Zuni Road (part of a separate engineering study) between San Mateo Blvd. and Wyoming Blvd.
- Louisiana Boulevard between Copper Ave. and Gibson Blvd.
- Kathryn / Southern/ Trumbull Avenue between San Mateo Blvd. and Utah St.
- San Pedro Drive between Central Ave. and Gibson Blvd.
- Copper Avenue between San Mateo Blvd. and San Pedro Dr. and Louisiana Blvd. and Wyoming Blvd.
- Utah/ Texas/ Vermont Street between Copper Ave. and Southern Ave.
- Pennsylvania Street between Marquette Ave. and Southern Ave.
- San Pablo/ Espanola Street between Copper Ave. and Southern Ave.
- Alvarado Street between Marquette Ave. and Ross Ave.
- Ross Ave./ Cardenas St./ Anderson Ave. between San Mateo Blvd. and San Pedro Dr.
- Georgia St./ Trumbull Ave. between Gibson Blvd. and San Pedro Dr.
- Central Avenue and San Mateo Boulevard were not included in the scoping report.

The trail will provide better pedestrian and bicycle connections to public facilities such as parks, schools, health, senior, and community centers and other destinations from surrounding neighborhoods.

The trail alignment was identified by the local non-profit ACHIEVE. The organization received funding in early 2009 from the Centers for Disease Control (CDC) to prepare an Action Guide, “Places for Physical Activity – Facilitating Development of a Community Trail and Promoting Its Use to Increase Physical Activity among Youth and Adults.” This initiative is designed to reduce barriers to physical activity by creating new or modifying existing places for physical activity, and to promote their use. ACHIEVE spent several months gathering community input and assessing the walkability of the South San Pedro, Trumbull, and La Mesa



neighborhoods. Neighborhood-specific pedestrian safety information along with the community trails outline was developed for residents of the International District in Spanish, English, and Vietnamese. In March, 2010 a large workshop was held with the support of their sponsor, City Councilor, Rey Garduño, to finalize the trail. The MAP/Guide was completed in September of last year, and a kick-off event was held at the International District Festival. To date over 5,000 Map/Guides have been distributed in the International District: <http://www.starkravenstudios.com/Achieve/>

This scoping study is a continuation of their efforts to identify specific pedestrian and bicycle projects along the trail that can be funded and implemented.

1.2 Recommended Projects

The scoping report identifies \$8 million in pedestrian-bicycle safety and traffic calming improvements along International Trail corridors designed to:

1. prevent injuries,
2. encourage walking for health,
3. accommodate users of all abilities, and
4. reduce speeding traffic.

Safety and calming improvements are proposed along each of the trail corridors and include such features as:

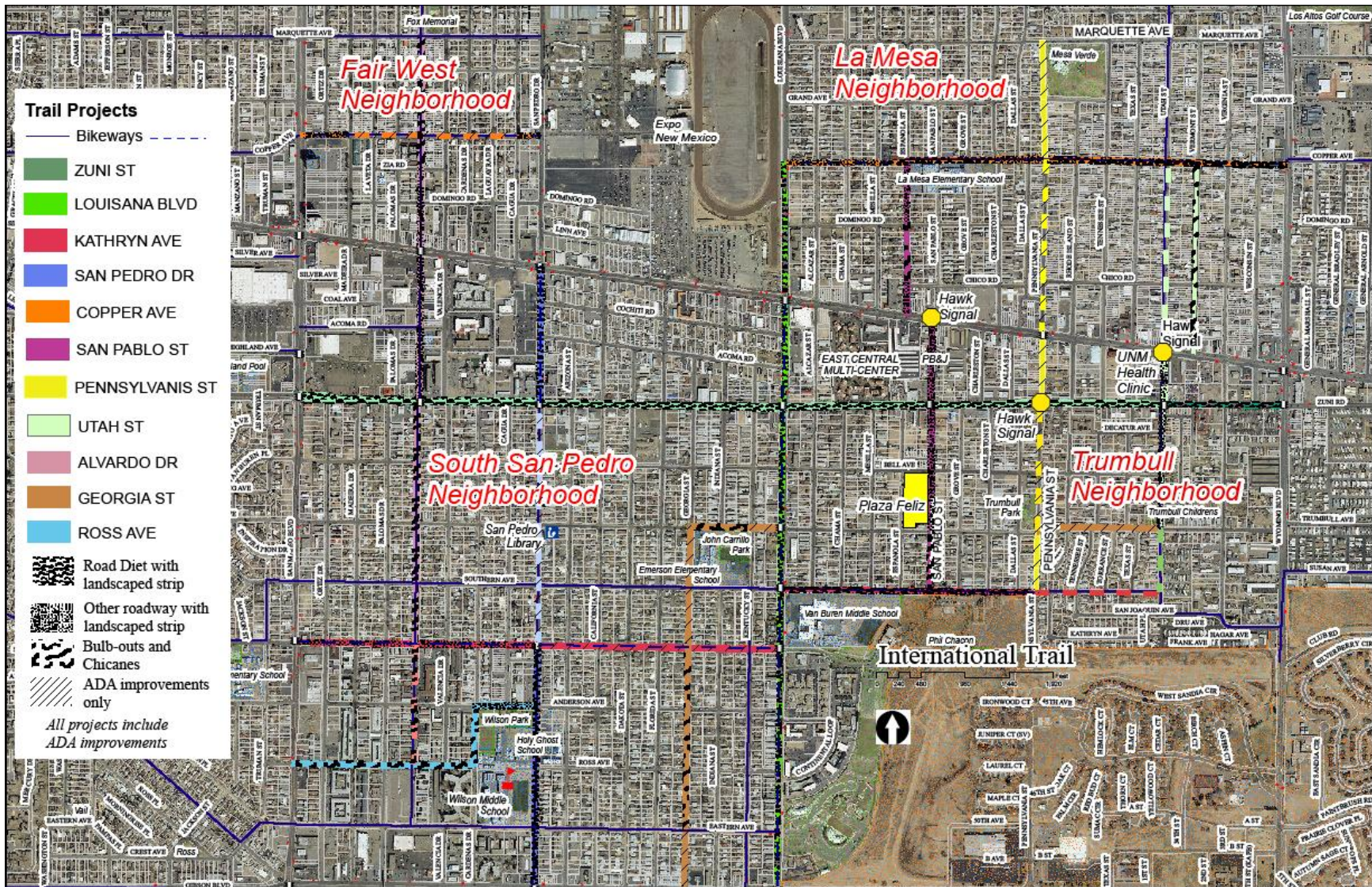
- wider sidewalks with planting strips,
- bike lanes,
- ADA curb ramps,
- safer intersections with marked crosswalks and pedestrian signals
- lighting and signage.

Projects are phased by corridor and shown in exhibit below.



Recommended Phasing					
Trail Segments		Length	Destinations Served	Est. Cost	Source
2.	Louisiana Blvd Road Diet, Copper to Gibson	1.4 mi	Van Buren Middle School, Phil Chacon Park; C.C. Community Center; North-south trail spine	\$1,651,750	STP-E/CMAQ
3.	Kathryn Ave/ Southern Ave/ Trumbull Ave, San Mateo to Utah St.	1.6 mi	Van Buren Middle School; MRA designated streetscape project; East-west trail spine	\$1,211,750	STP-E/CMAQ
4.	San Pedro Street, Central to Gibson	1.5 mi	Wilson Middle School, Holy Ghost School, Library; North-south trail spine	\$1,315,900	STP-E/CMAQ
5.	Copper Avenue, Louisiana to Wyoming	1.95 mi	La Mesa Elementary School; East-west trail spine	\$1,083,600	STP-E/CMAQ
6.	Vermont Street/ Utah Street, Copper to Trumbull	0.83 mi	PB&J, health clinic and senior housing	\$ 531,250	GO Bonds; HSIP
7.	San Pablo St/ Espanola St, Copper to Southern	0.83 mi	East Central multi-center, PB&J, and new housing	\$ 581,000	GO Bonds; HSIP
8.	Georgia Street/ Trumbull Avenue	0.76 mi	Emerson Elementary School, John Carrillo Park	\$ 379,471	GO Bonds, SRTS
9.	Pennsylvania Street, Marquette to Southern	1.1 mi	Mesa Verde Park; Trumbull Park	\$ 389,700	GO Bonds; HSIP
10.	Ross/ Anderson Avenue, San Mateo to San Pedro	0.56 mi	Wilson Middle School and Park	\$ 335,300	GO Bonds, SRTS
11.	Alvarado Drive, Marquette to Ross	1.4 mi	Fox Memorial Park	\$ 743,700	GO Bonds
Zuni Trail Segment				\$8,251,850	
1.	Zuni Road Diet, Washington to Central	3 miles	Corridor study underway – East-west trail spine	\$2,000,000	STP-E/CMAQ
Total Project		14 miles		\$10,251,850	
Notes: STP-E=enhancement; CMAQ =congestion mgt air quality; GO=general obligation bonds; HSIP=safety funds; SRTS=safe routes to school					





2.0 Trail Description

Albuquerque's Southeast Heights was platted after World War II and built out in the 1950s with the rapid influx of new residents, many employed at expanding Kirtland AFB and Sandia National Labs. During the 1970s large areas were rezoned for multi-family housing to accommodate a burgeoning young adult population. In the 1980s the area began to decline economically as base families moved into newer parts of the city and with it an associated increase of blight and crime. Cheap housing provided opportunities for Asian and other immigrants to settle there and begin restaurants and other businesses that would culturally transform the area. In the 1990s, the City initiated several programs to deter crime. These measures included a Strike Force Team that condemned vacant, substandard, and crime ridden properties and Crime Prevention through Design (CPTED) street diverters. The area has begun to turn around with the completion of a Metropolitan Redevelopment Area plan in 2000 (2010 update), redevelopment of the International Market block, and the subsequent designation of the International District. Pedestrian and roadway projects will further redevelopment and increase safety in the district.

2.1 Transportation System

The roadway network follows a grid pattern of arterial and collector streets. Arterial streets include east-west Central Avenue, Zuni Road, and Gibson Boulevard as well as streets running north and south such as San Mateo Boulevard, Louisiana Boulevard, and Wyoming Boulevard. Collector streets include east-west Copper Avenue and Kathryn Avenue as well north-south San Pedro Street. Pennsylvania Street and Utah Street, running north-south, function like collectors although not so designated. North-south roadways consist of long blocks of about 600 feet while east-west roadways have short blocks of 325 feet. Blocks along Central Avenue vary since the corridor is diagonal in direction.

All roadways in the Southeast Heights provide sidewalks although most are narrow, have no buffer, and are not ADA compliant. San Pedro is the only street with dedicated bike lanes; however, Copper, Southern, Eastern, Alvarado, and Utah are designated bike routes.

The Southeast Heights is well-served by public transit. Rapid Ride routes (with 15 minute headways) follow Central Avenue and have the highest ridership. Commuter routes include San Pedro, Gibson, and Wyoming. All day routes include San Mateo, Zuni, Louisiana, Wyoming, and Gibson.



2.2 Traffic Volumes

Central Avenue is the busiest roadway in the study area with traffic volumes between 22,000 and 34,500 on an average weekday (AWDT). Louisiana, Wyoming, and Zuni Road are the next busiest roadways with a lot of variability along their corridors and between peak and non-peak hours.

In terms of pedestrian activity, Central Avenue and San Mateo is the business intersection with almost 900 pedestrians a day. Central and San Pedro, Louisiana, Pennsylvania, and Wyoming all have heavy pedestrian activity (over 200 pedestrians a day) as well as San Mateo and Highland (400+), and Zuni at Louisiana and San Pablo (200+), and Louisiana at Southern (almost 200 pedestrians).



2.3 Traffic Crashes

The Southeast Heights is considered especially hazardous for pedestrians. Most of the City's pedestrian injuries and fatalities occur along roadways in this area according to data provided by the Mid Region Council of Governments (MRCOG). The worst intersections are Central and San Mateo, Central and San Pedro, Central and Louisiana, Central and Wyoming as well as Kathryn and San Mateo and Kathryn and Louisiana.



Exhibit 1: 2009 Roadway Volumes		Cross Street							
North-South Roadways		Gibson	Kathryn	Southern	Trumbull	Zuni	Highland	Central	Copper
San Mateo Boulevard	Vehicles	13,200	17,200	-	-	24,100	-	27,800	-
	Ped-Bikes	118/ 36	144/ 62	-	-	119/ 48	437/ 42	866/ 50	152/ 29
San Pedro Street	Vehicles	7,000	11,800	-	-	13,100	-	12,800	-
	Ped-Bikes	50/ 22	49/ 21	-	-	90/ 28	-	206/ 38	64/ 25
Pennsylvania Street	Vehicles	-	-	-	-	-	-	-	-
	Ped-Bikes	-	-	-	-	Need counts	-	264/ 45	-
Louisiana Boulevard	Vehicles	14,600	17,900	-	-	-	-	19,600	21,400
	Ped-Bikes	28/ 8	70/21	173/ 61	166/34	224/ 20	-	310/ 32	-
Wyoming Boulevard	Vehicles	-	16,000	-	-	-	-	24,400	31,000
	Ped-Bikes	-	-	-	-	88/37	-	214/ 22	68/ 21
East-West Roadways		San Mateo	Alvarado	San Pedro	Louisiana	San Pablo	Pennsylvania	Utah	Wyoming
Copper Avenue	Vehicles	-	-	-	2,000	-	3,300	-	6,700
	Ped-Bikes	152/ 29	-	64/ 25	-	-	-	-	68/ 21
Central Avenue	Vehicles	32,700	-	22,000	32,000	-	34,500	-	26,500
	Ped-Bikes	866/ 50	193/ 63	206/ 38	310/ 32	-	264/45	-	214/22
Zuni Road	Vehicles	18,500	-	18,500	21,200	-	16,800	-	9,200
	Ped-Bikes	119/ 48	82/ 50	90/ 28	224/ 20	269/ 35	Need counts	113/15	88/29
Kathryn Avenue	Vehicles	5,800	-	1,400	-	-	-	-	-
	Ped-Bikes	144/ 62	-	49/ 21	70/ 21	-	-	-	-
Gibson Boulevard	Vehicles	25,600	-	16,000	-	-	-	-	-
	Ped-Bikes	118/ 36	72/ 17	50/ 22	28/ 8	-	-	-	-
Source: MRCOG, 2010									



Exhibit 2: 2009 Roadway Crashes		Cross Street					
North-South Roadways		Gibson	Kathryn	Zuni	(2010)	Central	Copper
San Mateo Boulevard	Vehicles	6-20	1-5	6-20	-	21-40	6-20
	Pedestrians	1	1	0	2	3-6	0
	Bicycles				3		
San Pedro Street	Vehicles	6-20	1-5	6-20	-	21-40	6-20
	Pedestrians	0	0	0	5 (1 fatal)	1	0
	Bicycles				4		
Louisiana Boulevard	Vehicles	6-20	6-20	6-20	-	41-70	1-5
	Pedestrians	1	0	0	2	1	0
	Bicycles				1		
Pennsylvania Street	Vehicles	-	-	6-20	-	6-20	0
	Pedestrians			3-6	5	0	0
	Bicycles				1 (fatal)		
Wyoming Boulevard	Vehicles	-	-	21-40	-	21-40	
	Pedestrians				-		
	Bicycles				-		



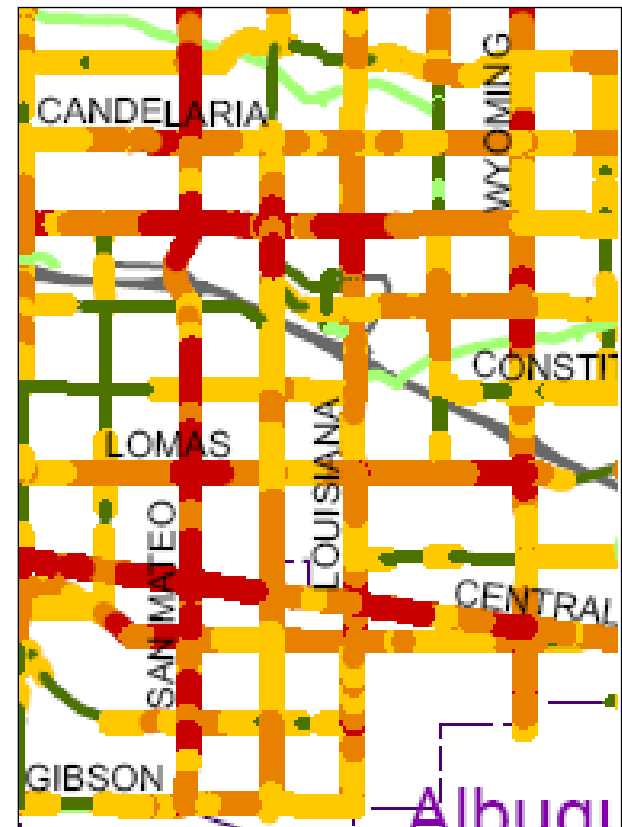
Exhibit 2: 2009 Roadway Crashes		Cross Street				
East-West Roadways		San Mateo	San Pedro	Louisiana	Pennsylvania	Wyoming
Copper Avenue	Vehicles	1-5	6-20	1-5	-	6-20
	Pedestrians	0	0	0		0
	Bicyclists	-	-	-	-	-
Central Avenue	Vehicles	41-70	31-40	41-70	6-20	21-40
	Pedestrians	3-6	1	1	0	0
	Bicyclists	-	-	-	-	-
Zuni Road	Vehicles	21-40	6-20	6-20	6-20	21-40
	Pedestrians	0	0	0	3-6	0
	(2011)	2	5 (1 fatal)	2	5	
	Bicyclists	-	-	-	-	-
	(2011)	3	4	1	1 (fatal)	
Kathryn Avenue	Vehicles	1-6	1-6	6-20	-	-
	Pedestrians	1	0	0		
	Bicyclists	-	-	-	-	-
Gibson Boulevard	Vehicles	6-20	6-20	6-20	-	-
	Pedestrians	1	0	1		
	Bicyclists					
Source: MRCOG, 2010; Vector Engineering, 2011						



2.4 Pedestrian Composite Index

Trail roadways have been scored by MRCOG using their pedestrian composite index. The index compares pedestrian generators (schools, bus stops, parks, community centers, connectivity, transit ridership, and households with no vehicles) to deterrents (crashes, traffic volume, and speed) along a roadway segment.

Central and San Mateo facilities are rated a high regional priority. Louisiana, Zuni, San Pedro, and Kathryn are rated medium regional priorities. Copper is rated a low regional priority (except near the school).



Pedestrian Composite Index

Lower Regional Priority Scores

Medium Regional Priority Scores

High Regional Priority Scores

Source: MRCOG, 2011



2.5 Deficiencies

Roadways in Southeast Heights have a number of sidewalk deficiencies as described in this section. According to walkability audits conducted on 100 blocks by ACHIEVE during 2010:

- ✓ Sidewalks are non-existent in a few locations
- ✓ Curb ramps are not ADA compliant at most intersections
- ✓ Obstructions such as light poles, signs, and hydrants exist on many sidewalk sections
- ✓ Most of the sidewalks on local streets on the Trail are less than four feet in width, without any planting strips. A typical block provides a 3.5 foot sidewalk, with many cross-slopes at driveways that are difficult to walk on.
- ✓ Most of the sidewalks on collector streets are less wide than the six-foot standard for collectors, and often are four feet or less.
- ✓ Most of the sidewalks on arterial streets are less than six feet, and much less than the 9 foot minimum when located in designated Activity Centers.
- ✓ Some of the sidewalks are wider at the corners, and pedestrians can comfortably walk side by side, but this is the exception.
- ✓ Street trees or other plants grow on only six blocks.



City of Albuquerque Department of Municipal Development (DMD) has inventoried sidewalk conditions such as cracks, buckling, heaving, uneven pavement, and missing sections. The inventory also identifies obstacles in the pedestrian realm and must be addressed by multiple agencies. Sidewalk improvements are estimated to cost \$105,000. The City will be moving ahead with short-term repairs on Alvarado, Copper, Espanola, and Georgia. Other identified repairs will be included as part of the long-term projects identified in this report. City DMD and Planning will need to coordinate with these agencies to remove obstacles.

- Bus signs and benches in the sidewalk are in Transit's jurisdiction;
- Parked vehicles, dirt, trash, weeds, and overgrown vegetation in the sidewalk are the responsibility of the property owner and will require action by Code Enforcement.
- Light, telephone and electric poles in the sidewalk must be addressed by PNM;
- Dumpsters in the sidewalk are Solid Waste's responsibility, and
- Water meter boxes and hydrants in the sidewalk will be dealt with by Water Utility Authority.

The City has recently rehabilitated some of the streets on the International Trail using its ¼ Cent GRT program. These include slurry, micro-seal, and inlay projects, as well as replacing some curb/gutter and sidewalk.

- Alvarado Drive between Central Avenue and Kathryn Avenue
- Kathryn Avenue between Ortiz Drive and San Pedro Drive
- San Pablo Street between Dixon Rd. and Southern Avenue
- San Pedro Drive between Bell Avenue and Gibson Boulevard
- Southern Avenue between Charleston Street and Texas Street
- Trumbull Avenue between Rhode Island Street and Utah Street

An FY 2012 micro surface project is programmed for Ross Avenue between Ortiz Drive and Cardenas Drive, Alvarado Drive between Ross Avenue and Anderson Avenue, Anderson Avenue between Cardenas Drive and San Pedro Drive, and Cardenas Drive between Ross Avenue and Anderson Drive. Trail projects such as ADA and sidewalk improvements could be coordinated with these rehabilitation projects.



2.6 Trail Safety Needs

Safety needs for trail roadways include the following countermeasures:

1. Reconstruct sidewalks of at least 5 to 6 feet in width and with a 5 to 6 foot landscape buffer. *Adequate sidewalks can reduce pedestrian crashes by 88%.*
2. Reduce number of travel lanes and/or reduce lane width to slow speeds. *“Road diets” can reduce pedestrian crashes by 29%.*
3. Install pedestrian lighting along trail segments, especially intersections. *Lighting reduces pedestrian fatalities by 42% at midblock locations and 54% at intersections.*
4. Provide pedestrian refuge medians at mid-block and intersection crossings. *Raised medians and islands reduce pedestrian crashes at marked crosswalks by 46% and at unmarked crosswalks by 39%.*
5. Tighten turning radii and/or install curb extensions to reduce crosswalk distances at intersections. *Studies have shown a correlation between large turning radii and higher pedestrian crashes.*
6. Use of beacons or hybrid signals where conventional traffic signals are not warranted. *Studies have shown a 69 percent reduction in pedestrian crashes where HAWK signals have been installed.*



Exhibit 3: East-West Roadways	Class	Right -of- Way	Curb to Curb	Travel Lanes	Bike- ways	Bus Route	Sub-standard Width (ft)	Alvarado	San Pedro	Louisiana	San Pablo	Pennsylvania	Utah	Wyoming
							Sidewalk Conditions/ Obstacles							
Copper Ave	Collector	60	32/44	2	Route		3-4		weeds, dirt, heaving		light pole; dirt, cracks, heaving	cracks, weeds, glass, trash	visual obstruct- ion	
Central Ave	Arterial	100	N/A	4+ median		66, 666, 777	4-8	bus sign, bench; planter	dirt, cracks, bus shelter; bench, bush, well opening	cracks, buckling, heaving	weeds, cracks, dirt; heaving, incline; electric pole; bench	glass, cracks, dirt; phone poles	uneven, dirt, cracks; bench	phone pole; bench, bus sign; hydrant, trash can
Zuni Rd	Arterial	6 -70	N/A	4		766	N/A	bench, shrubs	dirt, cracks	trash, glass, dirt, cracks	light poles			
Trumbull Av	Local	60	32	2			2 ½-4			pole; missing section		dirt	cracks, dirt, weeds	
Southern Ave	Local	60	44	2	Route		3 ½-6							
Kathryn Ave	Collector	60	32/44	2			3 ½-4		dirt, cracks, weeds	bushes, plants	cracks, dirt, weeds			
Ross/ Anderson Av	Local	60	32	2			4 ft.	dumpster, bins, debris	hydrant					
Eastern Ave	Local	60	N/A	2	Route		N/A							
Gibson Blvd	Arterial	120	N/A	4+ median		16/18, 96, 222	N/A							



Exhibit 4: North-South Roadways	Class	Right- of- Way	Curb to Curb	Travel Lanes	Bike- ways	Bus Route	Sub-standard Width (ft.)	Southern	Kathryn	Zuni	Central	Copper
							Sidewalk Condition/ Obstacles					
San Mateo Boulevard	Arterial	120	N/A	4+ median		140, 141	N/A					
Alvarado Street	Collector	60	32/44	2	Route		3 – 3 ½	weeds; parked truck	-	cracks		
San Pedro Street	Collector	60	48/ 55	2		34	4 – 6	cracks, light pole, hydrant	hydrant	cracks, poles, heaving	pole	
Georgia Street	Local	60	32	2			3 ½ - 4	cracks, buckled; hydrant; weeds, branches, bushes	hydrant; buckled			
Louisiana Street	Arterial	85	66/ 75	4+ median		3, 157	5 ½ - 6	cracks, buckled, heaving; light poles, hydrant, commercial sign	school signals, masthead	cracks; trash can; street light, dirt; trees	trash, dirt: light poles	
San Pablo Street	Local	60	32/40	2			3 ½ - 5½					
Espanola Street	Local	60	32	2			6				parked cars, trash	cracks, heaving; hydrants
Pennsylvania Street	Collector	60	32/44	2			3 ½ - 4					
Utah Street	Local	60	32/44	2	Route		N/A					gravel
Vermont	Local	60	N/A	2			3 ½ - 6				poor, gravel	utility box, hydrant
Wyoming Boulevard	Arterial	120	N/A	4+ median		31, 98	N/A					
Sources: City of Albuquerque DMD sidewalk inventory, 2010; ACHIEVE walkability audit, 2010; Bernalillo County GIS, 2011												



3.0 Coordination on Related Projects

3.1 Zuni Road Corridor Study

The City of Albuquerque Department of Municipal Development (DMD) has contracted with Vector Engineering to prepare a corridor study on Zuni Road between Washington Street and Wyoming Boulevard. A “road diet” alternative has been recommended for the segment between San Mateo Boulevard and Wyoming Boulevard in the International District. The proposed section is to drop one of the four travel lanes to two travel lanes and a center turn lane with bike lanes and wider sidewalks on both sides. While a PM peak hour volume of 1200 on Zuni is above what is recommended for this roadway section, a similar section been operated successfully on Isleta Boulevard with similar volumes using a hybrid approach that retains left turn lanes at major intersections.

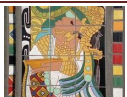
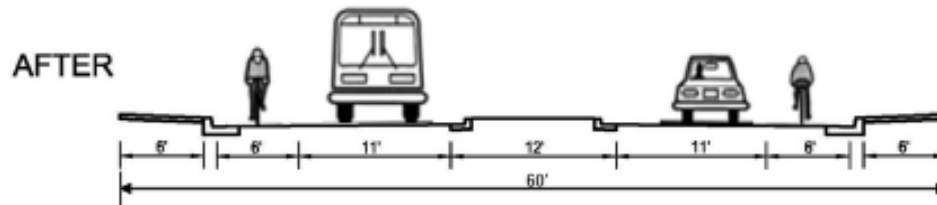


Road Diet - Benefits

- Allows for marked mid-block crossings
- Shorter distance for peds to cross
- Removes left turns from the through lane
- Requires smaller footprint/fewer impacts to utilities, right-of-way
- Generally safer for peds and motorists
- Provides median refuge throughout corridor
- May have traffic calming effect
- Could allow for median landscaping
- Could divert traffic to other routes

Downsides

- Traffic volumes high enough on Zuni that level of service may deteriorate
- May divert traffic to other routes



3.2 International District Sector Plan

City of Albuquerque Planning Department is currently preparing a sector development plan for the International District using Strata Design as their consultant. Several neighborhood meetings have been held to identify major issues and goals for the planning area. The recommendation of mixed use zoning would promote walkability in the neighborhoods and would support the development of a pedestrian trail system linking schools, parks, health clinics, community centers, and retail nodes. Multi-family design guidelines and zoning would bring more stability to the neighborhood by encouraging mixed income home ownership and townhouse style housing.

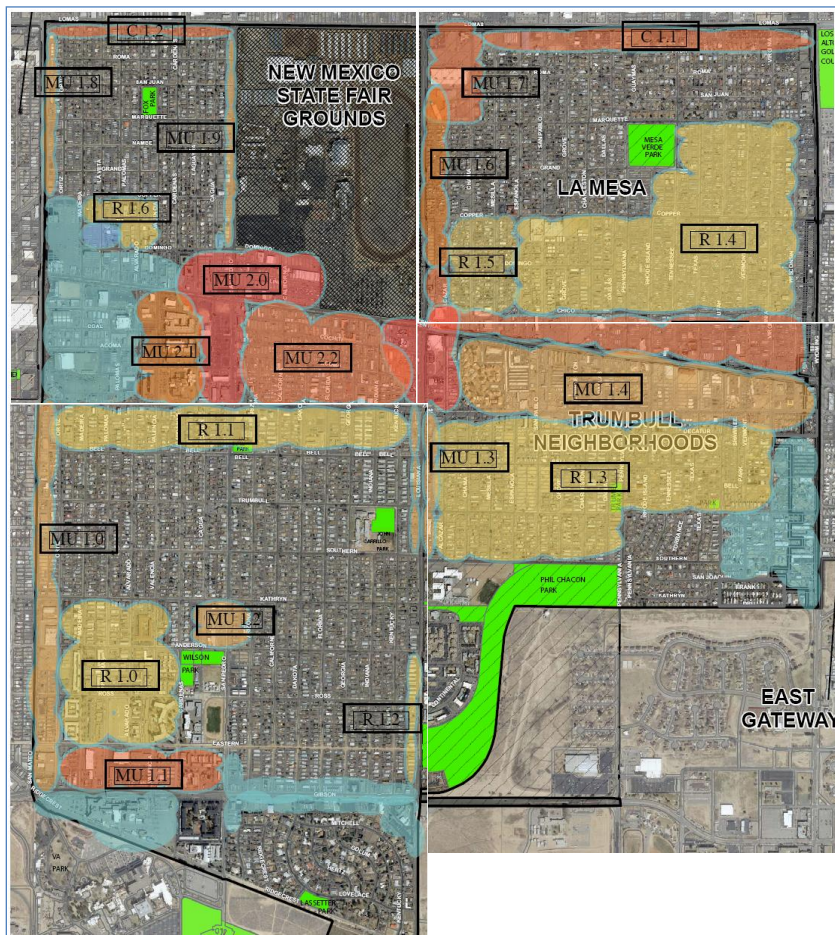


Exhibit 6: Land Use/ Zoning Strategies	
R 1.0, 1.3, 1.4, 1.6	Design and landscape guidelines for neighborhood friendly multi-family housing.
R 1.1	Further study of down zoning to R-1. Design guidelines for R-3 to integrate duplex, townhouse, apartment, and single family uses.
R 1.2	Tailored multi-family zoning for narrow lot conditions.
R 1.5	Design and landscape guidelines for townhouses compatible with adjacent single family housing.
MU 1.0, 1.3, 1.6, 1.8, 1.9, 2.1	Design guidelines for commercial and multi-family development.
MU 1.2	Create Neighborhood Activity Center.
MU 1.7	Further study of mixed use and/or residential is needed.
MU 1.5, 2.0	Design guidelines for moderate density mixed use development complementing International Marketplace.
MU 1.4, 2.2	Mixed use development sensitive to existing multi-family and heavy commercial pattern.
C 1.0	Encourage more diversity in land use
C 1.1, 1.2	Limit saturation of auto dealerships



The Place Matters Team of Bernalillo County is working with the City of Albuquerque Planning Department and community members on the International District Sector Plan. Place Matters is a national effort to use local policy to improve health. In the International District of Albuquerque's southeast heights, Place Matters team members and local officials are complementing the local land use plan with a Health Impact Assessment (HIA). The HIA helps ensure that the public's concerns about crime and traffic accidents are brought to bear on the plan's design recommendations using proven planning and design techniques. This effort demonstrates a move to build health into all policies.

3.3 Near Heights Metropolitan Redevelopment Area Plan

The 2000 MRA Plan made a number of recommendations; several that have been accomplished:

- Adaptive reuse of aging motels on Central Avenue
- Replace and rehabilitate multi-family housing; replacing absentee landlords with owner occupants
- Installation of Crime Prevention through Design (CPTED) traffic calming devices on residential streets
- International Marketplace project proposed in the plan has spurred economic development.

The 2010 MRA Expanded Plan recommends:

- Mixed-use, public-private project at Alvarado Dr./ Ross Ave. opportunity site
- Mixed-use neighborhood retail and/or housing at San Mateo Blvd/ Kathryn St. opportunity site
- Streetscape Projects:
 - San Mateo Blvd (Bell to Gibson)
 - Gibson Blvd gateway (Kentucky, Dakota)
 - Kathryn St (San Mateo to San Pedro) project includes tree lined parkways, bike lanes, bollards, pedestrian lighting, gateway kiosks, and specialty paving: \$1,008,000. The specialty pavement allows the street to be closed between San Mateo and Madeira periodically for farmers markets or special events.





3.4 Safe Routes to School

An action plan for improving safety on routes to school has been prepared for both Emerson Elementary School and Wilson Middle School. The NMDOT program will provide \$250,000 in safety improvements for each school. \$304,000 in safety improvements were identified by an engineering consultant for Emerson and \$213,000 for Wilson. The following priority projects are listed:

Exhibit 7: SRTS Projects				
Priority	Emerson Elementary School	Location		Cost
1	Raised crossed walk; curb extensions; continental crosswalk; signage	Trumbull/ Indiana		\$20,050
2	Curb extensions all 4 corners; ADA ramps; continental crosswalks	Georgia/ Trumbull		\$53,600
3	Continental crosswalks; directional ADA ramps			\$22,600
4	Route sidewalk around utility pole	Trumbull/ Louisiana		\$ 3,400
5	Access control; repair damaged curb; barrier behind sidewalk	Trumbull/ Louisiana		\$ 6,750
Priority	Wilson Middle School	Location		Cost
1	4 way stop signs	Cardenas/ Eastern		\$ 500



3.5 Albuquerque Bikeways and Trails Master Plan

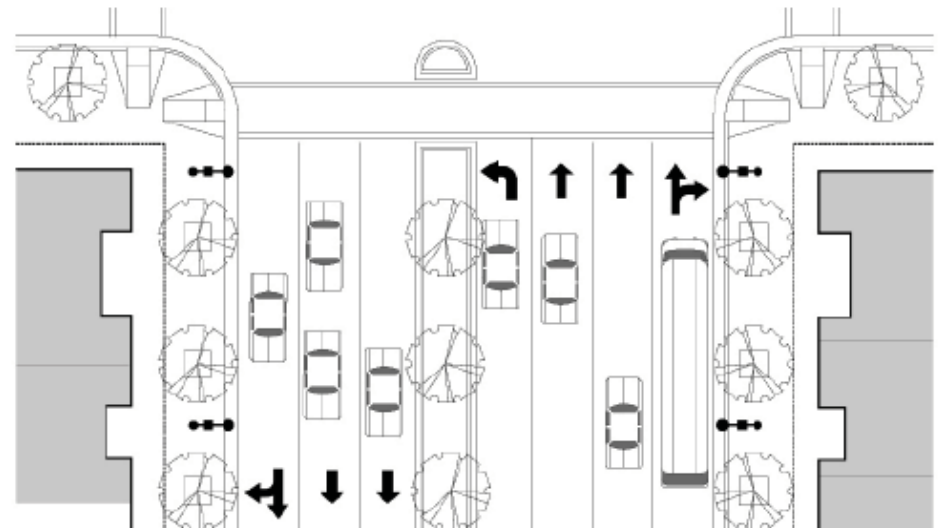
The draft City bikeways plan recommends the following projects in the International District:

- Completing a bike lane gap for San Pedro Drive between Zuni Road and Claremont Avenue is a top priority project. Converting this segment to a 3 lane roadway with bike lanes is one recommendation (\$1,373,860).
- Convert Utah Street bike route between Copper Avenue and Southern Avenue to a bike boulevard.
- Pennsylvania Street between Southern Avenue and Copper Avenue is a critical link route (\$5,086).
- Kathryn Avenue between Truman Street and Louisiana Boulevard is a critical link route (\$6,136).

~~Mayor Berry is proposing a multi-use regional loop trail around the metropolitan area that would include a southern segment that follows Gibson Boulevard and the Kirtland AFB boundary on the south side of the International District. The International Trail should be planned to connect to this regional trail.~~

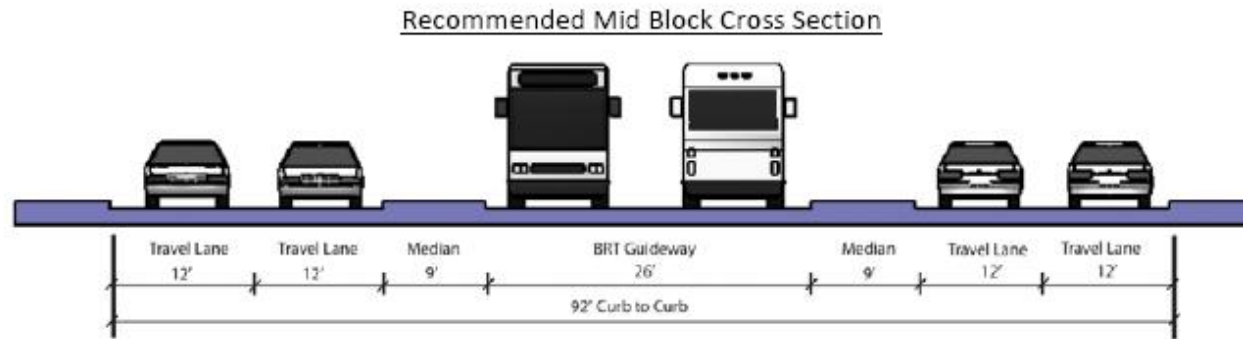
3.6 Great Streets Facility Plan

The *Great Streets Facility Plan* is a Rank 2 Plan adopted by City of Albuquerque in 2010. It provides principles, prototypical designs, standards, and guidelines for Major and Enhanced Transit Corridors such as Central Avenue, Louisiana Boulevard, San Mateo Boulevard, and Wyoming Boulevard that run along the perimeters or through the International District. These designs provide guidance for trail improvements along the aforementioned corridors.



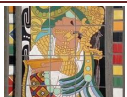
3.7 Central Avenue BRT Study

ABQ Ride has completed a study of street sections that will accommodate a dedicated lane for bus rapid transit (BRT) along Central Avenue. For the segment between San Mateo Blvd. and Wyoming Blvd., it is recommended two lanes be dropped and a 26 ft. wide guide-way be created in the center of the roadway separated from travel lanes by 9 ft. medians on either side. Three BRT lines currently run along Central Avenue (red line, blue line, and recently, green line).



3.8 Plaza Feliz

Greater Albuquerque Housing Partnership (GAHP) is developing affordable rental housing on a one-block site between Espanola Avenue and San Pablo Avenue on the west and east and Bell Street and Trumbull Street on the north and south. They also have developed affordable for-sale housing on Utah Street at Southern Avenue.



3.9 Expo New Mexico Fairgrounds

A 2009 master plan for the state fairgrounds proposes pedestrian access through the property which can connect the International Trail neighborhoods:

The North-South street - Avenue of the Governors - and the East-West green provide area for the weekly Flee Market and a future Farmer's Market to create year-round activity within the Expo New Mexico property. During Fair-time, these become the "backbone" for activity, with space for exhibits, vendors, and entertainment.

A new arena, to the south of the existing Tingley Coliseum, would provide a permanent home for "hard-floor" uses, while the existing Tingley could be remodeled to become a permanent "dirt-floor" show arena adjacent to the Equestrian facilities to the North. A new 150,000 to 180,000 expo center would anchor the green space on the North, with the potential for a hotel tower on the South side of the East-West green space.



4.0 Trail Concepts

Four pedestrian-bicycle facility concepts have been developed for local, collector, and arterial roadways.

4.1 Road Diet

Under this concept, generally applicable to under-utilized arterial or collector roadways, the road is placed on a “road diet” where (at least) one lane of vehicular traffic is eliminated. In place of the lost lane of vehicular traffic, space is provided to allow uses for:

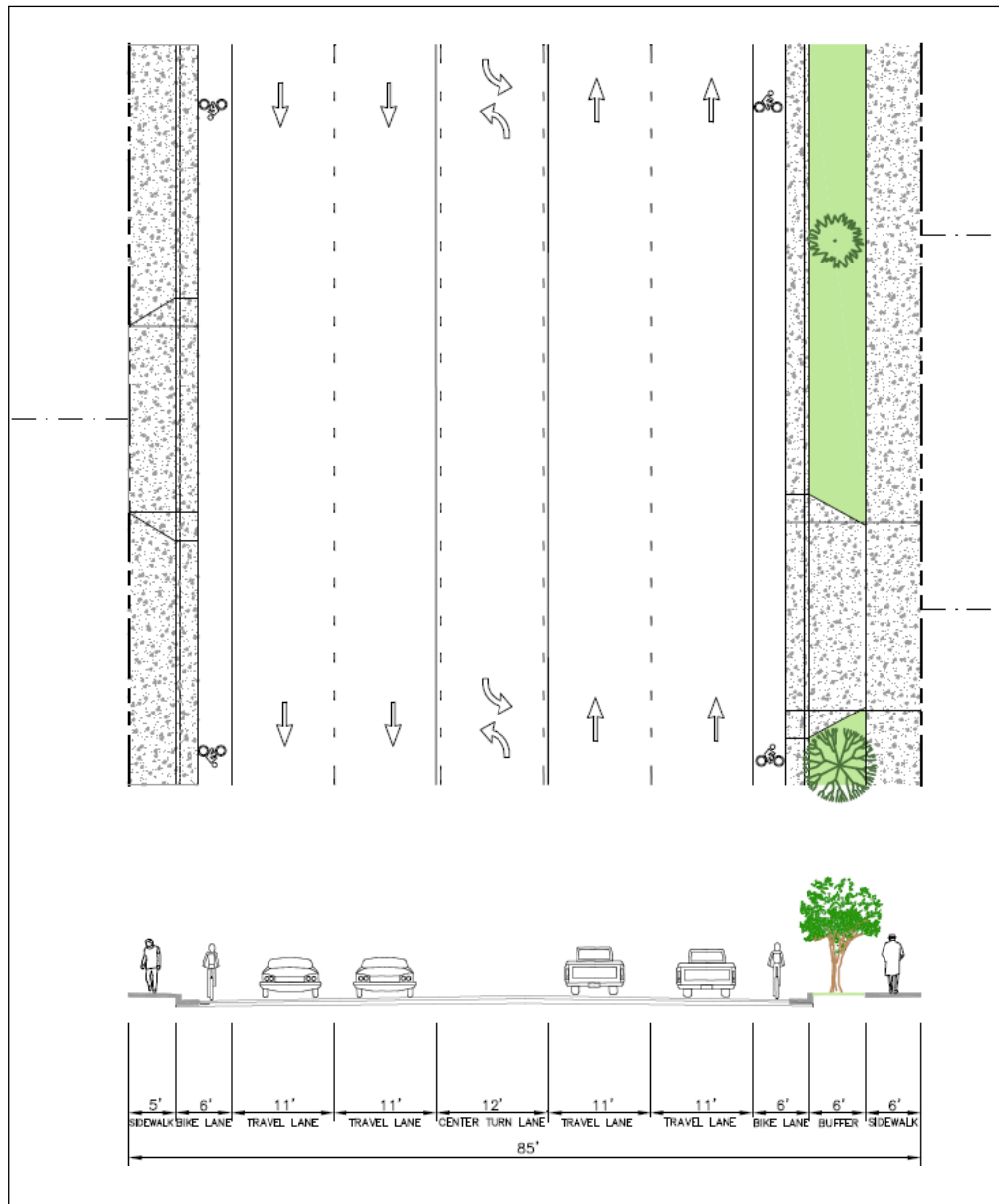
- widened sidewalks
- restriping of roadway to allow for bicycle lanes
- construction of roadside amenities, including landscaping
- transit stops, pedestrian refuge areas, etc.
- any combination of the above.

Depending on the actual improvements planned, the geometric alignment of the roadway may need to be altered. Specifically, at least one or both outside curbs may need to be reconstructed at a new location. In some cases, median curb may need to be reconstructed at a new location. In some cases, median curb may need to be removed or added. With the realignment of curb and gutter, the vertical alignment of the road may also need to be changed for drainage purposes. This may also result in additional drainage features (such as new inlets, laterals, and sidewalk culverts) being constructed.

Eliminate one lane of traffic by relocating one outside curb lane approximately 12 feet further away from the R.O.W. line at or near the same grade as the existing curb. Restripe roadway with the new lane configuration. Prior to restriping apply a micro-surfacing layer to pavement to cover the old conflicting striping. Within new widened area, construct a new contiguous 6’-wide concrete sidewalk adjacent to the R.O.W. with a 4 ft-wide landscape buffer directly behind curb and gutter. The restriping will generally include 5’ wide bicycle lanes in both directions.

- Same as above; except that 4’-wide sidewalk on opposite side of street is to be removed and replaced with a new 6’-wide sidewalk.
- Same as above; except that opposite street side curb is also removed and replaced.





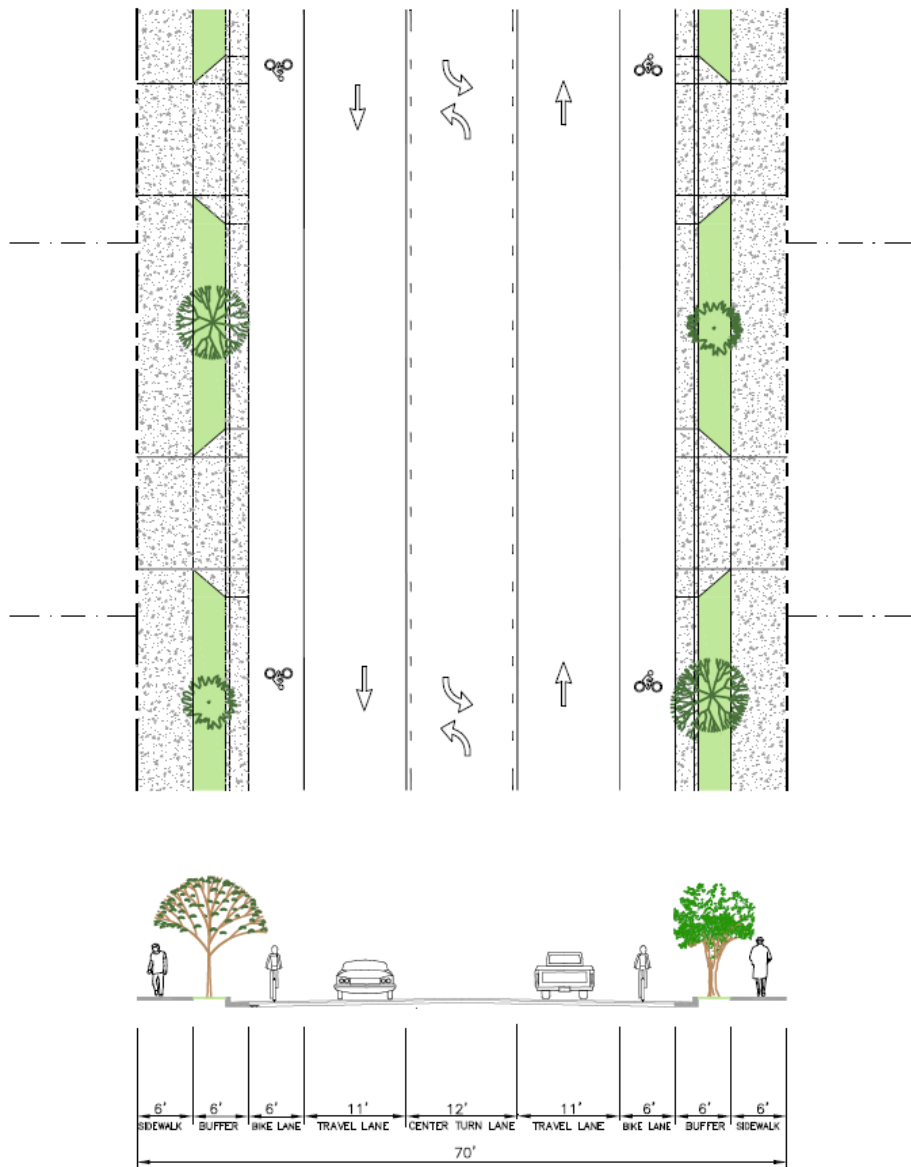
The addition of bike lanes, landscaping, and the sidewalk widening on Louisiana Blvd. can be accomplished by reducing the number of motor vehicle travel lanes in the southbound direction from three to two. This will provide adequate width within the right-of-way to accommodate the additional bicycle and pedestrian amenities. The intersection of Louisiana and Central is one location along the Louisiana corridor where the lane reduction can conveniently occur. The issue that must be investigated is its affect on the motor vehicle level of service.

Louisiana in this area consists of three southbound through lanes, two northbound through lanes, and a two-way continuous left turn lane transitioning to a dedicated left turn bay for each approach. The southbound outside lane is a shared through and right, with the northbound direction adding a dedicated right-turn lane. Central Avenue consists of three through lanes in both the eastbound and west directions with a raised median transitioning to dedicated left turn lanes for each approach. The outside lanes for each approach are also shared through and right turn lanes. The lane reduction on Louisiana can be accomplished at this intersection by changing the southbound approach to a right-lane-must-turn-right configuration. The southwest quadrant of the intersection can be treated with a

Road Diet on Louisiana Boulevard



Road Diet on San Pedro Drive between Central and Zuni



curbed 'bulb-out' which will provide a positive barrier to vehicular traffic and reduce crossing distance for pedestrians crossing Louisiana on the south side of the intersection.

A traffic analysis was performed using the above proposed configuration to determine if unacceptable levels-of-service would result for motor vehicle traffic from the reduction in southbound through lanes. The most recent traffic data available is from December of 2002. The resulting levels-of-serve are shown in the exhibit below for both the existing and proposed lane configurations.

As can be seen from the chart, there are no reductions in LOS and the right turn movement is improved for the southbound approach. This appears to designate an acceptable approach to the road 'diet' for Louisiana Blvd. The other signalized intersections along this corridor displayed similar results with no significant increases in delay.

San Pedro from Central to Zuni was also modeled for the road diet in a similar fashion. The southbound outside shared through and right turn lane at Central and San Pedro was changed to a dedicated right turn lane with the northbound outside shared lane at San Pedro and Zuni treated similarly. This also exhibited no significant reductions in levels of service with improvements for certain movements. The resulting lane configuration on San Pedro in this area would be one through lane in each direction with a continuous left turn lane. Approaches to the



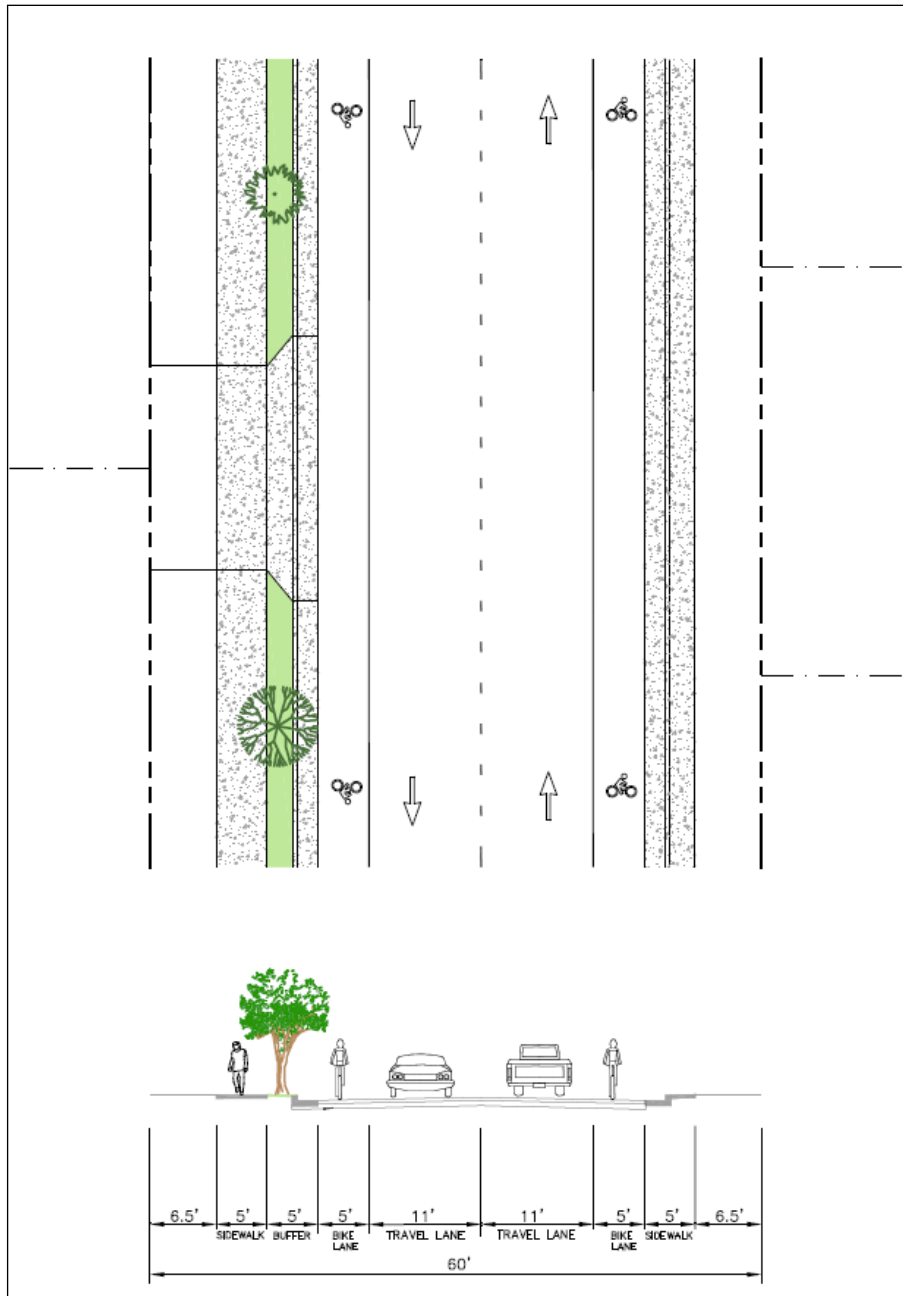
intersections with Central and Zuni would transition to the existing configuration.

Exhibit 5: Louisiana and Central Levels-of-Service (LOS)				
Approach Movement	AM Peak LOS		PM Peak LOS	
	3 SB Lanes	2 SB Lanes	3 SB Lanes	2 SB Lanes
EBL	B	B	C	C
EBT	B	B	C	C
WBL	B	B	D	D
WBT	B	B	D	D
NBL	B	B	B	B
NBT	C	C	C	C
NBR	A	A	A	A
SBL	B	B	C	C
SBT	B	B	B	B
SBR		A		A

4.2 Pedestrian Amenities

Under this concept, generally applicable to 32'-wide (face-to-face) residential and local roadways where adequate public R.O.W. exists, specific areas will be designated for enhanced pedestrian amenities. In such areas, a new 48" (minimum) wide sidewalk will be constructed away from the existing curb line with a landscape strip added between the street and the sidewalk. A "meandering" sidewalk will most likely be provided.





Pedestrian Amenities on Kathryn Avenue

4.3 Bulb-outs and Chicanes

Under this concept, generally applicable to 32'-wide (face-to-face) residential and local roadways, improvements will include making both sides of the street ADA compliant for pedestrians similar to Concept II above; except that occasional "bulb-outs" or "chicanes" will be provided to enhance pedestrian traffic by slowing traffic. No landscaping or other amenities are intended within the bulb-out areas. On such streets, no dedicated bicycle lane will be provided. A joint-use "sharrow" lane for bicycle use may be provided.

Under this concept, generally applicable to 32'-wide (face-to-face) residential and local roadways (generally running in the north-south direction), one side of the street is primarily selected for major improvements, with the other side receiving lesser improvements. The improvements are to include: new ADA-approved wheelchair ramps at all four quadrants of all intersections; new 4'-wide sidewalks constructed along one side of the street; three 50'-long curb "bulb-outs" with landscape improvements on this same side of the street; and two 50'-long curb "bulb-out" with landscape improvements on the opposite side of the street. On the primary side of the street, the initial and final "bulb out" will be at the block termini. On street parking will be limited to areas where bulb-outs do not exist.



4.4 ADA Improvements

Under this concept, generally applicable to 32'-wide (face-to-face) residential and local roadways, the only improvements are to make both sides of the street ADA compliant for pedestrians. Improvements include construction of wheel chair ramps at all four quadrants of all intersecting streets, construction of ADA-approved alley intersections, construction of 48" wide concrete sidewalks, and reconstruction of all private drive-pads to allow a maximum 2% cross-slope. Where necessary, obstructions will either be removed, or the sidewalk realigned to avoid the conflict.



5.0 Cost Estimates

Trails concepts were used to develop specific pedestrian and bicycle projects. Costs were determined for individual projects by long block and short block as shown in the exhibit below.

Exhibit 8: Project Cost Estimates							
Item	Description	Unit Cost	Long Blocks (625 ft.)	Blocks	Short Blocks (300 ft.)	Blocks	Total
Road Diet Projects	Drop Lane:						
	Remove/Dispose Curb/Gutter	\$ 7.01 LF	\$ 4,620	13		0	
	Install New Curb/Gutter	\$19.43 LF	\$13,270				
	Saw cut Pavement	\$ 2.36 LF	\$ 1,800				
	Remove/Dispose Asphalt	\$ 6.10 SY	\$ 5,080				
	Remove Material	\$ 8.87 CY	\$ 3,960				
	Landscape Buffer (4ft. wide)	\$33.70 SY	\$ 9,000				
	Irrigation	\$50/LF	\$36,000				
	Micro-surfacing (OGFC)	\$ 3.67 SY	\$17,680				
	Restriping Lanes/ 5 ft. Bike lanes	\$ 0.51 LF	\$ 840				
	Opposite Side:						
	Removal/ Disposal Sidewalk	\$14.91 SY	\$ 4,140	13		0	
	New Wheelchair Ramp	\$1,222 ea	\$ 2,440				
	New 6 ft. Sidewalk	\$39.40 SY	\$16,420				
	Remove/ Disposal Curb/Gutter	\$ 7.01 LF	\$ 4,620				
	Install New Curb/Gutter	\$19.43 LF	\$12,800				
	Saw cut Pavement	\$ 2.36 LF	\$ 1,560				



Item	Description	Unit Cost	Long Blocks (625 ft.)	Blocks	Short Blocks (300 ft.)	Blocks	Total
32 ft. Local Streets	ADA Compliance Only:						
	Remove/Dispose Sidewalk	\$14.91 SY	\$ 3,440	18	\$ 1,060	30	
	Remove/ Dispose Curb/ Gutter	\$ 7.01 LF	\$ 660		\$ 660		
	New Wheelchair Ramps	\$1,222 ea	\$ 4,890		\$ 4,890		
	New Drive pads	\$15.57 SY	\$ 4,810		\$ 4,810		
	Landscape Strip Behind Curb:						
	Remove/Dispose Sidewalk	\$14.91 SY	\$ 2,920	19	\$ 1,570	20	
	New 4 ft. Meandering Sidewalk	\$39.40 SY	\$ 7,720		\$ 4,140		
	Remove/Replace Soil	\$ 8.87 CY	\$ 1,070		\$ 570		
	Add 4 ft. Landscape Strip	\$33.70	\$ 6,610		\$ 3,540		
	Irrigation	\$					
	Install Chicanes or Bump-outs (4'/ 2' x 20 ft.):		5 bump-outs		3 bump-outs		
	Remove Curb/Gutter	\$7.01 LF	\$ 1,320	15	\$ 760	10	
	Saw cut Pavement	\$2.36 LF	\$ 450		\$ 260		
	Install New Curb/Gutter	\$19.43 LF	\$ 3,670		\$ 2,110		
	Import Material	\$ 9.97 CY	\$ 100		\$ 65		
	Decorative Concrete Paving, or	\$58.21 SY	\$ 2,980		\$ 1,940		
	Landscaping w/o Irrigation	\$33.70 SY	\$ 1,720		\$ 1,120		
	Landscaping w/Irrigation	\$50 LF	\$30,000	3	\$15,000	14	



Item	Description	Unit Cost	Long Blocks (625 ft.)	Blocks	Short Blocks (300 ft.)	Blocks	Total
Miscellaneous	Pedestrian Lighting	\$15,000 ea	-	25	-	52	\$1,170,000
	Median Refuge	\$ 3,200 ea	-	9	-	4	\$ 38,400
	HAWK Signals	\$100,000 ea	-	-	-	3	\$ 300,000
	Signage	\$ 230 ea	-	77	-	66	\$ 30,590
	Transit Shelters	\$ 5,000 ea	-	13	-	-	\$ 65,000
	Bio-swales	Incl. w/ landscaping	-	35	-	34	Incl. w/ landscaping
Total				77		66	



HAWK Signal



Bio-Swales in bulb-out



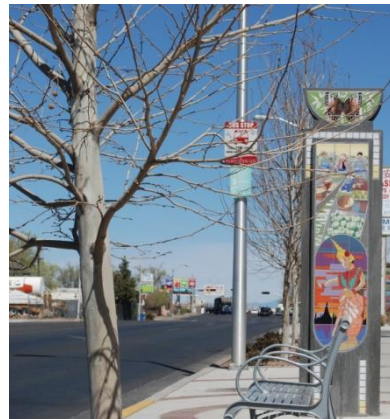
Tight turning radii, bulb-outs, ADA ramps, ladder crosswalk



6.0 Recommended Phasing

International Trail estimated total project costs are almost \$8 million. The proposed Zuni Road project is another \$2 million. Project phasing addresses intersections first along collector and arterial spines of the Trail where higher traffic creates most unsafe conditions; followed by residential routes to schools, health clinics, new housing areas, parks and other community facilities; and alternating between north-south and east-west routes. Trail projects include road diets (dropping lanes), landscape strips on one side, and bike lanes on collectors and arterials; bump-outs and chicanes on residential streets; pedestrian lighting, widened sidewalks, and ADA ramps/ drive-pads on all streets. Median refuges and HAWK signals are included at mid-block crossings.

Federal funding is available for collector and arterial streets through Mid Region Council of Governments (MRCOG) transportation improvement program (TIP) process. Federal sources include: surface transportation program enhancement (STP-E) and congestion management/air quality funds and highway safety funds (HSIP). Local street projects can be funded by federal Safe Routes to School (SRTS) program or local General Obligation (GO bond) funds. ADA compliance projects should be funded by City of Albuquerque GRT maintenance and operations funds.



Recommended Phasing					
Trail Segments		Length	Destinations Served	Est. Cost	Source
12.	Louisiana Blvd Road Diet, Copper to Gibson	1.4 mi	Van Buren Middle School, Phil Chacon Park; C.C. Community Center; North-south trail spine	\$1,651,750	STP-E/CMAQ
13.	Kathryn Ave/ Southern Ave/ Trumbull Ave, San Mateo to Utah St.	1.6 mi	Van Buren Middle School; MRA designated streetscape project; East-west trail spine	\$1,211,750	STP-E/CMAQ
14.	San Pedro Street, Central to Gibson	1.5 mi	Wilson Middle School, Holy Ghost School, Library; North-south trail spine	\$1,315,900	STP-E/CMAQ
15.	Copper Avenue, Louisiana to Wyoming	1.95 mi	La Mesa Elementary School; East-west trail spine	\$1,083,600	STP-E/CMAQ
16.	Vermont Street/ Utah Street, Copper to Trumbull	0.83 mi	PB&J, health clinic and senior housing	\$ 531,250	GO Bonds; HSIP
17.	San Pablo St/ Espanola St, Copper to Southern	0.83 mi	East Central multi-center, PB&J, and new housing	\$ 581,000	GO Bonds; HSIP
18.	Georgia Street/ Trumbull Avenue	0.76 mi	Emerson Elementary School, John Carrillo Park	\$ 379,471	GO Bonds, SRTS
19.	Pennsylvania Street, Marquette to Southern	1.1 mi	Mesa Verde Park; Trumbull Park	\$ 389,700	GO Bonds; HSIP
20.	Ross/ Anderson Avenue, San Mateo to San Pedro	0.56 mi	Wilson Middle School and Park	\$ 335,300	GO Bonds, SRTS
21.	Alvarado Drive, Marquette to Ross	1.4 mi	Fox Memorial Park	\$ 743,700	GO Bonds
Zuni Trail Segment				\$8,251,850	
1.	Zuni Road Diet, Washington to Central	3 miles	Corridor study underway – East-west trail spine	\$2,000,000	STP-E/CMAQ
Total Project		14 miles		\$10,251,850	
Notes: STP-E =enhancement; CMAQ =congestion mgt air quality; GO =general obligation bonds; HSIP=safety funds; SRTS=safe routes to school					

